U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
Honolulu and La Jolla Laboratories
P. O. Box 3830
Honolulu, Hawaii 96812

April 29, 1975

Minutes of Baitfish Committee Meeting
Held on April 24, 1975, 10 a.m.

Present:

Wayne Baldwin, Hawaii Institute of Marine Biology, UH
John Ball, Sea Grant Programs, UH
Andrew Gerakas, Hawaii State Dept. of Planning & Economic Development
Rudy Kunihisa, Bumble Bee Seafoods, Castle and Cooke
Jay Puffinburger, Hawaiian Tuna Packers
Michio Takata, Hawaii State Fish and Game Division
Robert Iversen, Regional Representative, NMFS, Honolulu, HI
Harvey Moore, NMFS Regional Office, Seattle, WA
Brian Rothschild, Director, Southwest Fisheries Center, NMFS, La Jolla, CA
Donald Aasted, Honolulu Laboratory, NMFS
Roger Green, Honolulu Laboratory, NMFS
Tamio Otsu, Honolulu Laboratory, NMFS
Richard Shomura, Honolulu Laboratory, NMFS
Jerry Wetherall, Honolulu Laboratory, NMFS

The meeting was called to order by Richard Shomura.

A film of bait aging and transporting activities at California, Hawaii, and en route on the roll on/off freighter was shown by Mr. Aasted.

Mr. Shomura reviewed details of the three alternative baitfish activities presented at the Baitfish Committee meeting of 8 April 1975:

1) Continue work on the transport of northern anchovy by the roll on/off method. Before any further California-Hawaii shipments are made, extensive experiments should be conducted to define baitfish quality and determine the effects on survival of density, oxygen levels, and handling methods. For a number of reasons Honolulu Laboratory personnel proposed a shift of the base of operation from Long Beach to Tiburon,California. A prime consideration was that Matson Navigation Co. had recently initiated a roll on/off service from Oakland to Honolulu; thus, if the experiments prove that the system is economically feasible, a full scale system of moving anchovy from California to Honolulu could originate from the San Francisco Bay area. Another factor favoring the Bay area was that small anchovy of the size considered most suitable for the Hawaiian aku fishery occur in abundance during the summer months in the Bay area, thus coinciding in time with the peak aku fishing season in Hawaii. Other advantages include the ready accessibility of a suitable docksite area at the Southwest Fisheries Center facility (Tiburon Laboratory) located in Tiburon, California, and the generally better water quality found in the San Francisco Bay area as compared to the Long Beach-Los Angeles Harbor area.

The experiments would answer questions now considered vital to further work involving the tank-trailer transporting method and would also supply information useful to other bait handling and transporting methods. The experiments would be followed by a trial shipment of bait from Oakland. Total costs, exclusive of NMFS labor and facilities, were roughly estimated at $15,000-$20,000.

2) Transport 1,000-3,000 scoops of anchovy by bait boat for tests of fishing effectiveness. The questions on the effectiveness of northern anchovy, relative to nehu, in taking aku is crucial to the feasibility of all bait transporting schemes under consideration. Under the present state of the art of bait transporting via tanker-trailer, the amount of anchovy delivered would be insufficient for any conclusive field tests on effectiveness. The technological feasibility of delivering sufficiently large samples by west coast bait boats has already been established. In addition to supplying bait for fishing tests, the venture would supply more data on operating costs and survival rates that would be useful in evaluating the economic feasibility of using this system as a bait transporting system in its own right. Cost of the method was estimated to be in the neighborhood of $20,000-$25,000.

3) Supply threadfin shad from Wahiawa Reservoir during the 1975 aku season for fishing tests. Should bait transporting schemes prove infeasible, work should be underway to augment the local supply of bait in other ways. One of the more likely alternatives is the use of threadfin shad. Previous tests with threadfin shad have been limited and the results inconclusive. For a proper evaluation of fishing power using shad, it will be necessary to supply enough threadfin shad during the entire fishing season. Cost of the operation is estimated to be $38,000. Part of the cost can be assumed by the Honolulu Laboratory should the project involve the Laboratory.

Mr. Kinney suggested that the work on the anchovy should include a fisherman experienced in the use and handling of northern anchovies in order to provide expertise in the evaluation of bait quality and to assist in developing an optional system.

Mr. Baldwin suggested a fourth alternative of conducting fishing tests using tabai (mosquitofish). The experimental culture now underway in Samoa could supply 200 buckets by the 1976 season.

The committee agreed that highest priority in future work should be given to the first two alternatives of roll on/off experiments at Tiburon and a single shipment of bait via a west coast bait boat. It was also agreed that work should begin on the shad experiments, if funding is available.

Mr. Gerakas suggested that funding for the three projects might be available from PTDF and requested that a proposal covering all of them be submitted next week for PTDF consideration. A detailed budget breakout for each option was also requested.

Table 1.--Distribution of tows by quarters.--Continued.

Countercurrent (Area 2 + 3 + 4 = 5° to 10°N; 110° to 170°W)

200-m Oblique	Year	Quarters with plankton tows				No. tows
		I	II	III	IV	
	1950	3			10	13
	1951	16	4	9		29
	1952	5	18		6	29
	1953	20				20
	1954	1				1
	1955			15	9	24
	1956	5		1	10	16
	1957				3	3
	1958	1	5		3	9
	1959					--
	1960					--
	1961				2	2
		51	27	25	43	146

South Equatorial (Area 5 + 6 + 7 = 5°N to 10°S; 110° to 170°W)

200-m Oblique						
	1950	5			3	8
	1951	44	12	28		84
	1952	22	42	14	45	123
	1953					--
	1954	9	10			19
	1955				87	87
	1956	24		26		50
	1957	14			78	92
	1958	79	50		8	137
	1959					--
	1960					--
	1961				11	11
		197	114	68	232	611

Fig. 1. — PLANKTON SAMPLES COLLECTED BY THE HONOLULU LABORATORY 1950–1969

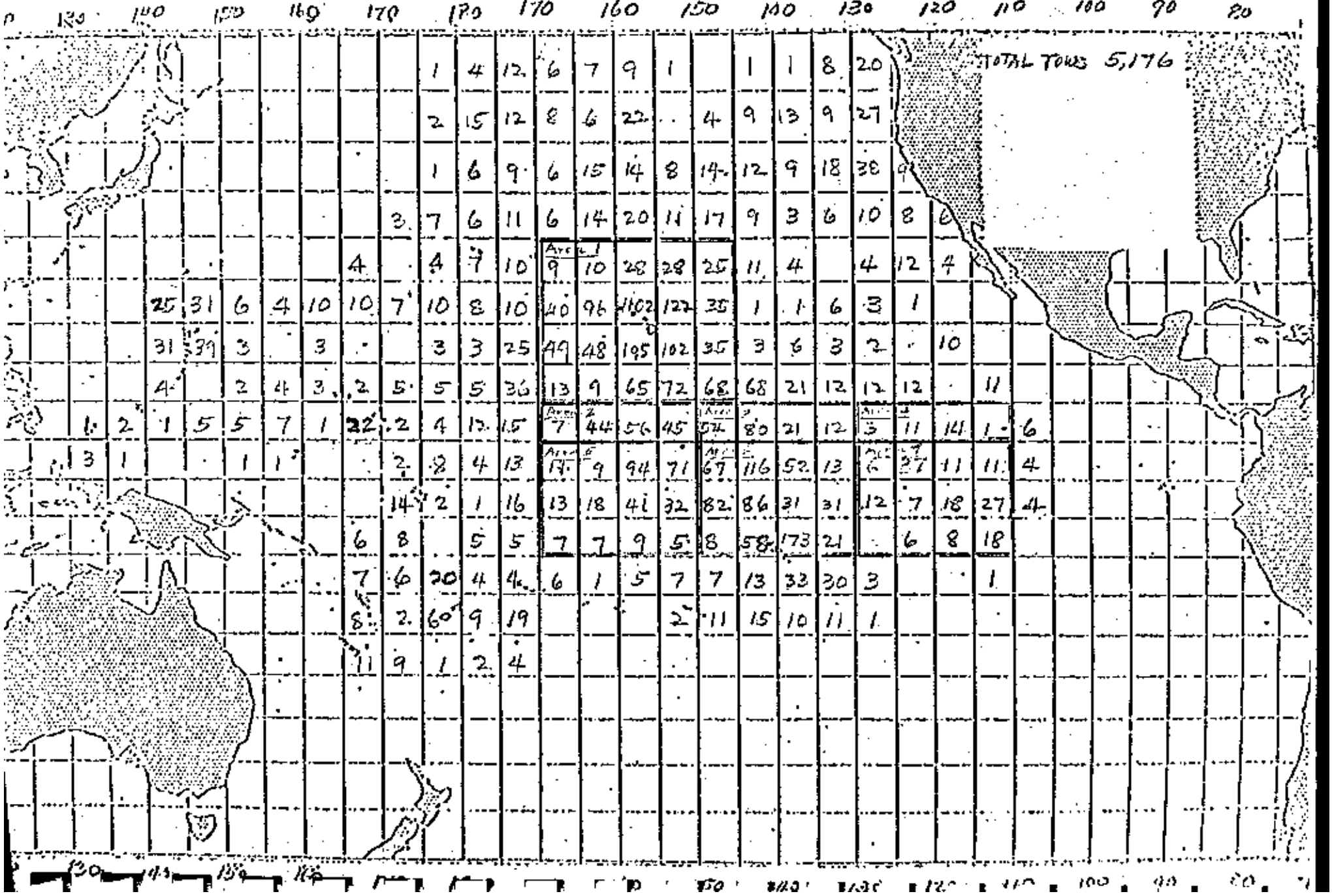
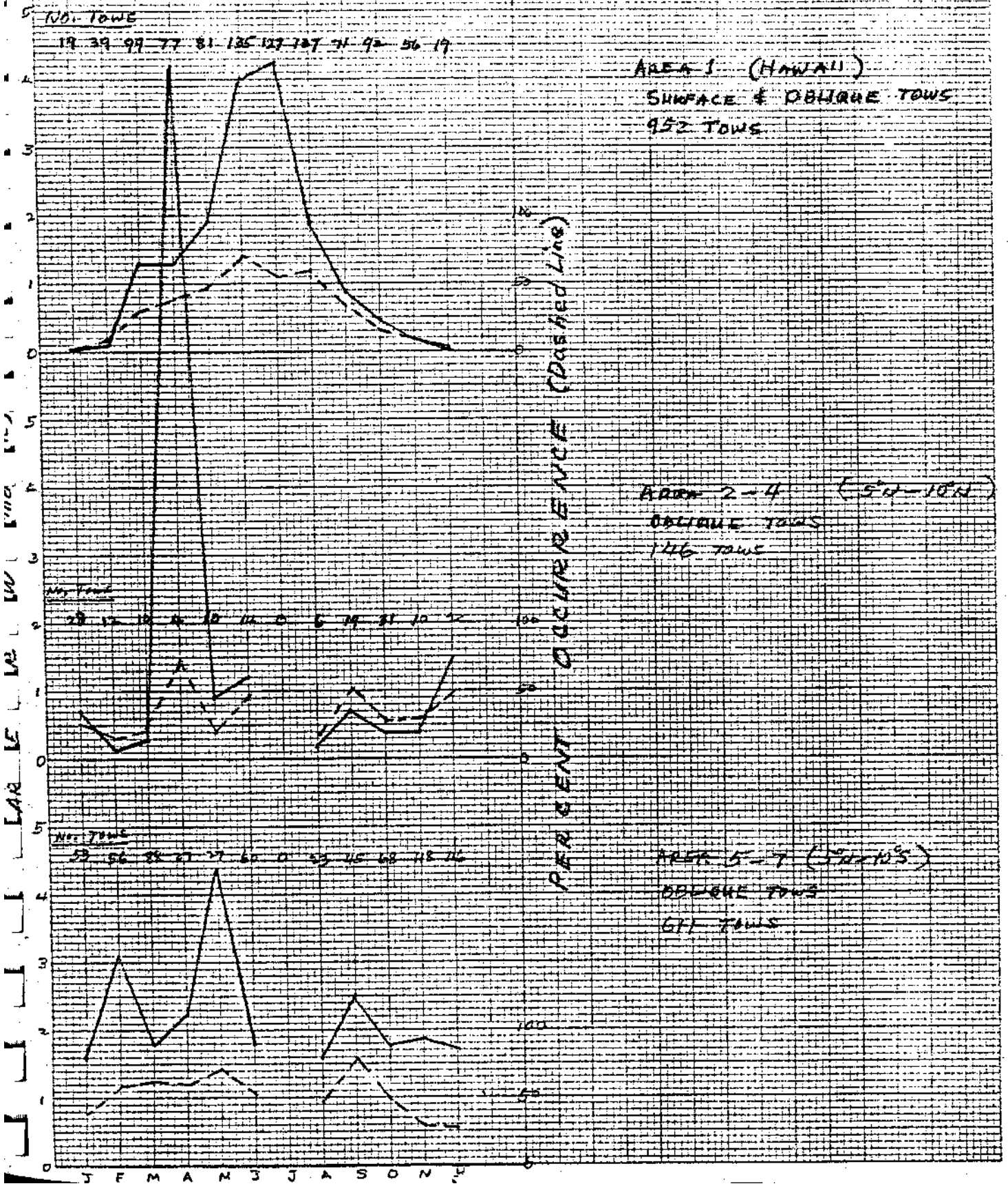


Fig. 2 – Larval Catch & Occurrence by Month
(All Years Combined)



OVERLAY FOR FIG. 3

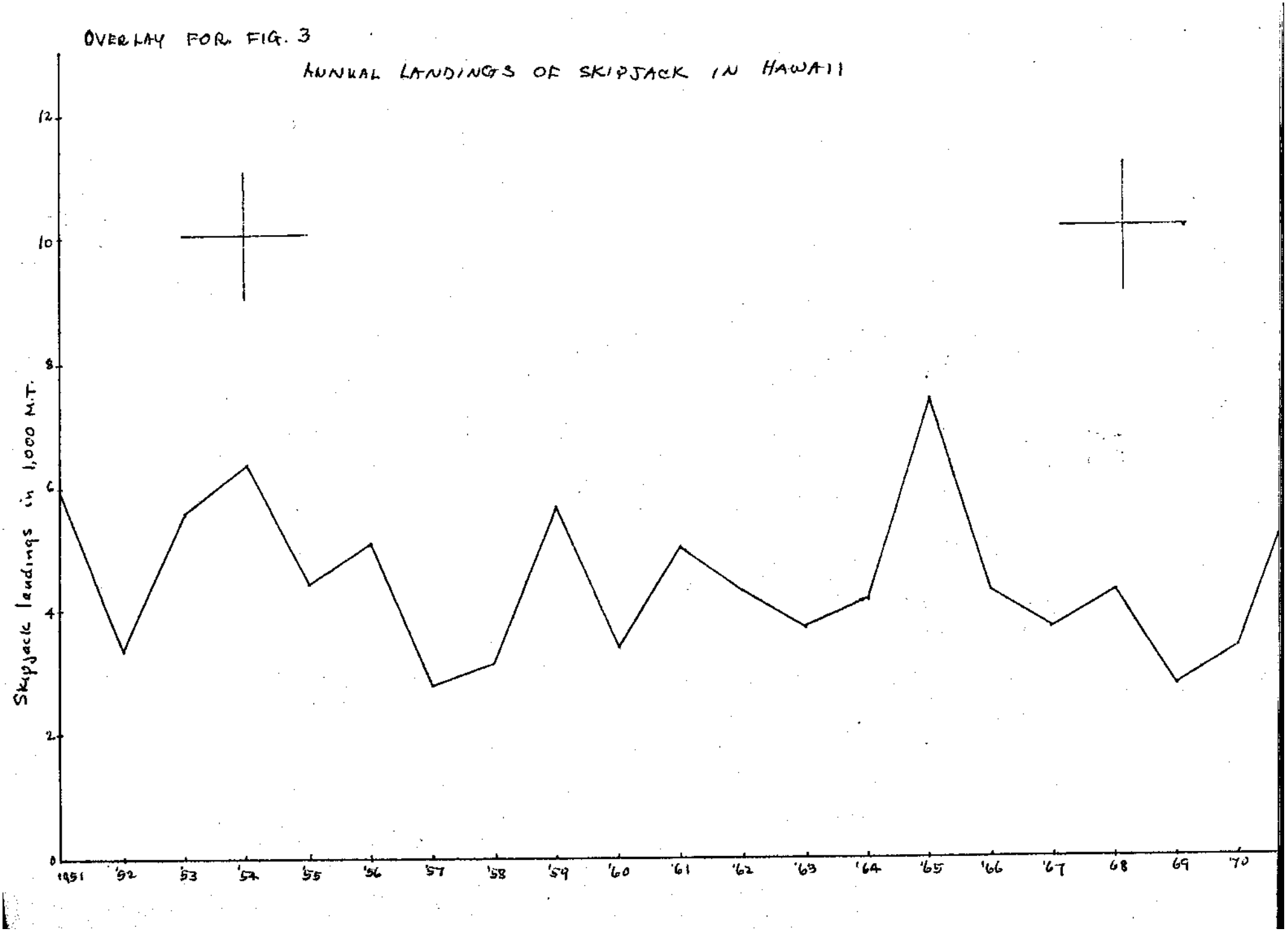
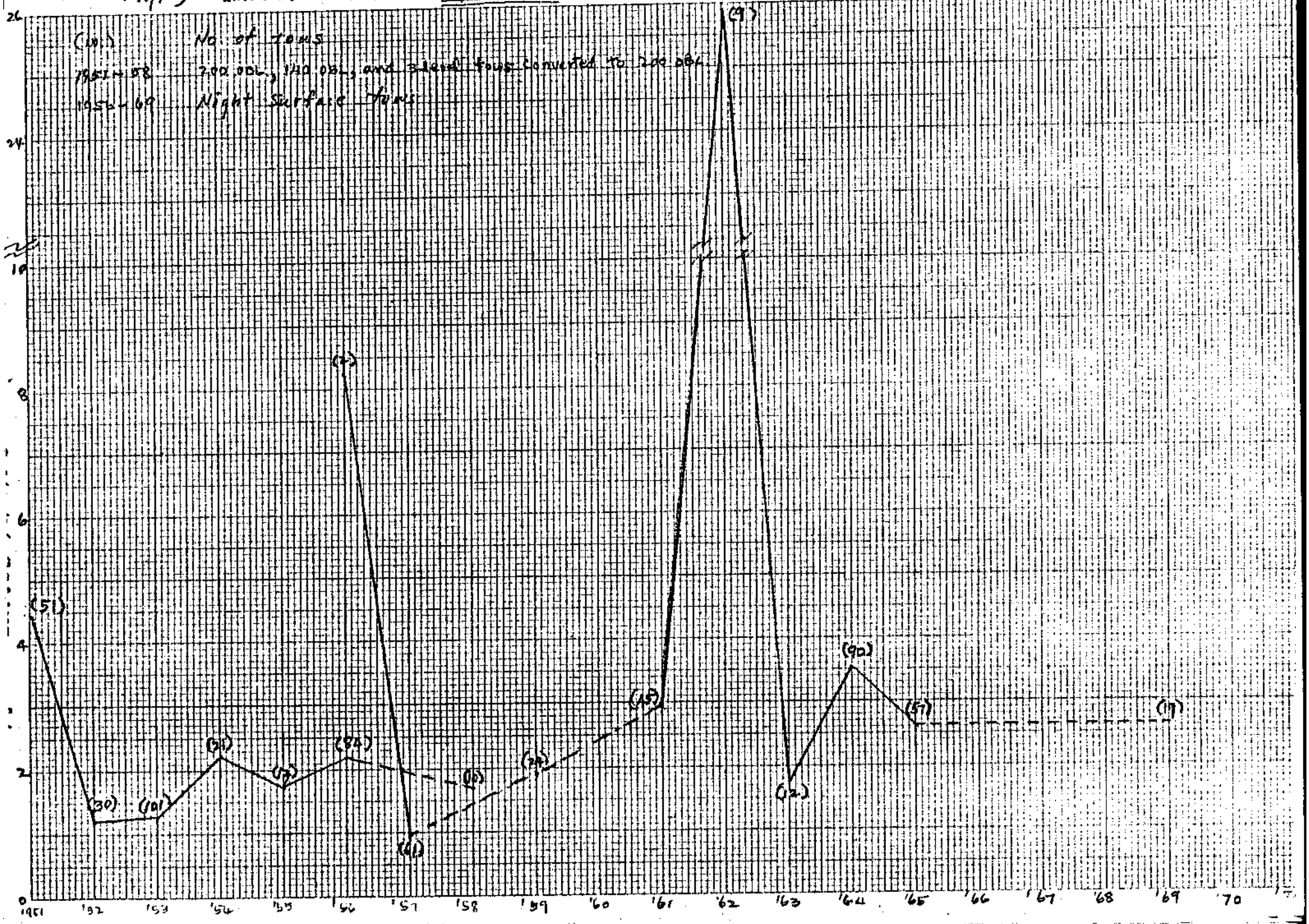


Fig. 3 – LARVAL SKIPJACK PER TON IN HAWAIIAN WATERS



OVERLAY FOR FIG. 4.

LANDINGS AND BAITBOAT CATCH-PER-DAY'S FISHING IN THE EASTERN PACIFIC

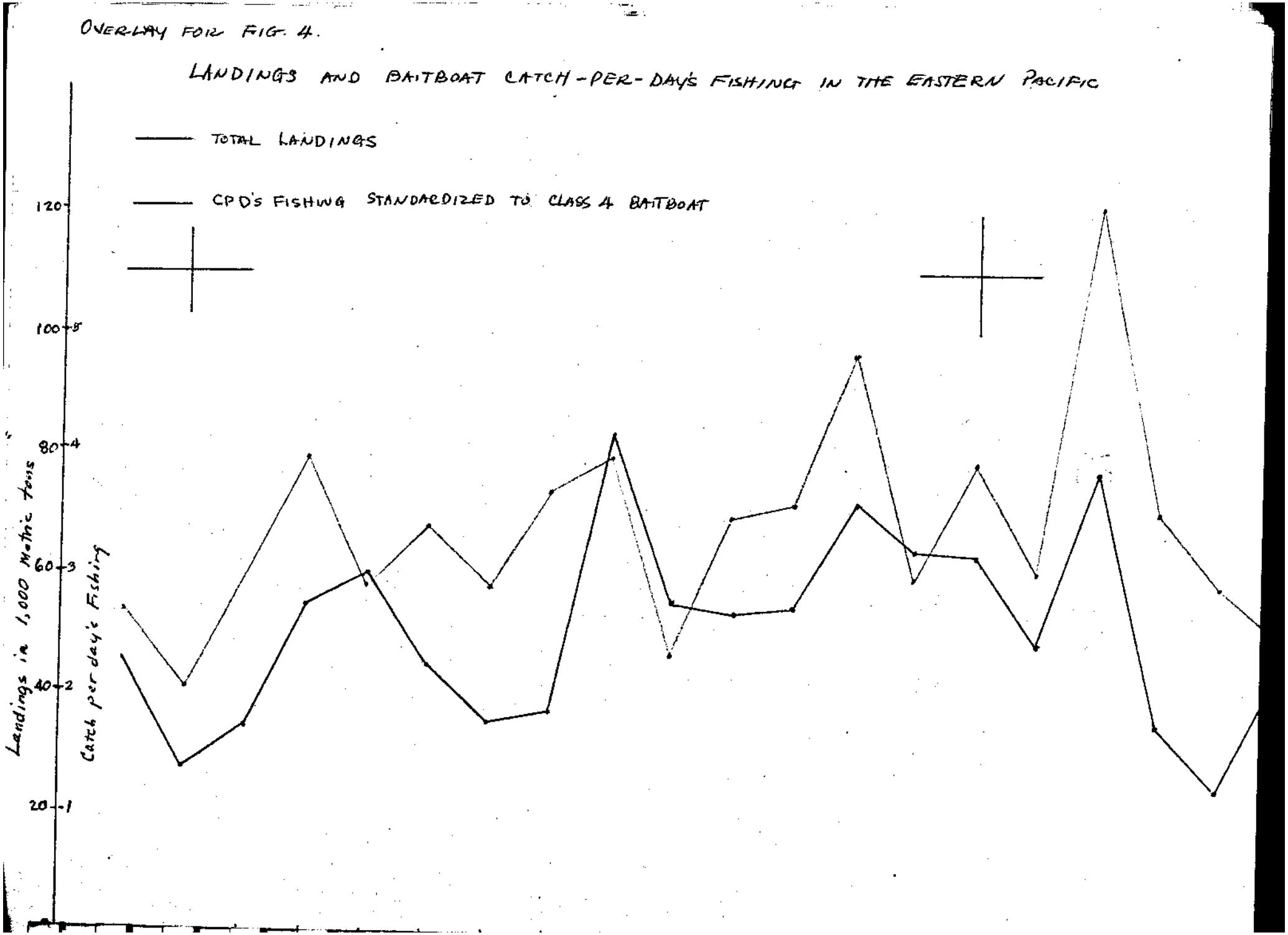


Fig. 4 — LARVAL SKIPJACK CAUGHT IN EQUATORIAL WATERS (OBLIQUE TOWS)